

Old-dog 555 learns six new tricks

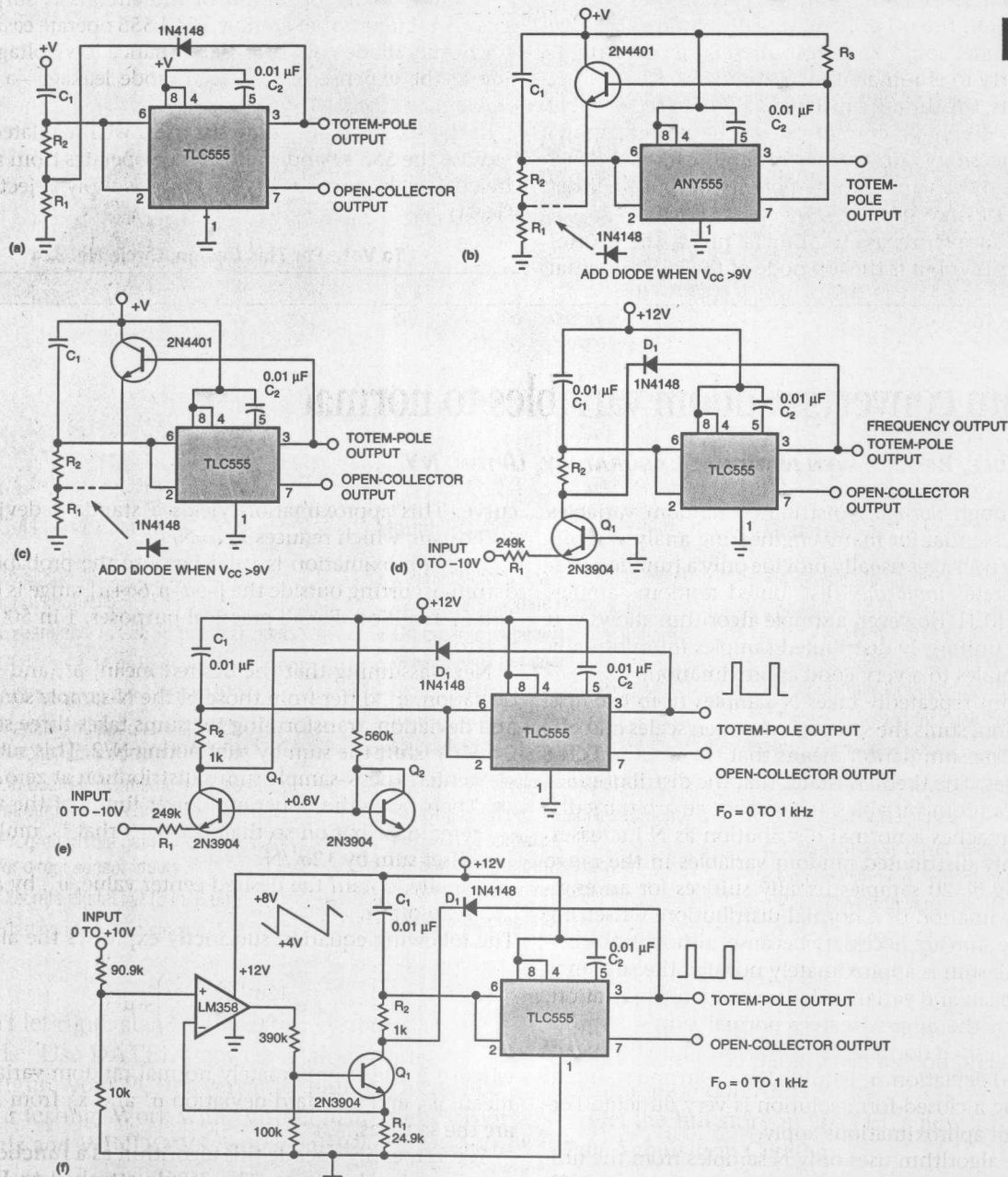
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The circuits in Fig 1 invert the ubiquitous 555 timer's operation. The circuits' output polarities are the inverse of conventional 555 timers'. The circuits' output duty cycle is exactly 50%. Further, you have a choice of open-collector or

totem-pole output—or both. And you can feed the timing capacitor from a negative current source referenced to the circuit's common.

I recommend the Texas Instruments TLC555, but any 555

FIGURE 1



You can configure an "inverted" CMOS 555 timer as a free-running oscillator (a), an inverted bipolar 555 with active reset (b), an inverted CMOS 555 with active reset (c), a simple VCO (d), an improved version of the VCO (e), and a VCO sporting an amplified current source (f).